

ABSTRACT

A broad band cholesteric liquid crystal film of the present invention is a cholesteric liquid crystal film obtained by coating a liquid crystal mixture containing a polymerizable mesogen compound (a), a polymerizable chiral agent (b) and a photoisomerizable material (c) on a substrate to ultraviolet polymerize a coat of the liquid crystal mixture, and has a reflection bandwidth of 200 nm or more. A broad band cholesteric liquid crystal film of the present invention has a broad reflection band, is of a thin type and can be manufactured in less of manufacturing steps.